

Engineering Science Undergraduate Course Schedule

Fall Term (2191)

Required Courses						
Subj./Catlg#	Class #	Course	Units	Days	Time	Room
PHYS 0219	10314	Basic Lab Physics, Science & Eng	2	Tu	10:00-10:50am	343 Alumni
	10315	<i>lab</i>		Tu	1:00-3:50pm	408 OEH
	19785	<i>lab</i>		Tu	6:00-8:50pm	408 OEH
PHYS 0477	22654	Intro to Thermal Physics, Rel., & QM	4	MW	11:00-12:15pm	11 Thaw
				F	11:00-11:50am	11 Thaw
ENGR 0020		Probability & Statistics for Engineers 1	4	<i>see course catalog for options</i>		
ENGR 0022	13075	Materials Structure & Properties	3	MWF	10:00-10:50am	11 Thaw
	13316	<i>recitation</i>	0	M	4:00-4:50pm	11 Thaw
	13537	Materials Structure & Properties	3	MWF	9:00-9:50am	157 Benedum
	13538	<i>recitation</i>	0	M	4:00-4:50pm	A115 PH-Crabtree
ECE 0031	13348	Linear Circuits and Systems 1	4	MW	9:00-10:15am	1211 Benedum
	13349	<i>recitation</i>				
	27173	<i>lab</i>		F	9:00-10:15am	1223 Benedum
	13350	Linear Circuits and Systems 1	4	TuTh	9:30-10:45am	150 Chevron
	13351	<i>recitation</i>				
	127174	<i>lab</i>		F	1:00-2:15pm	1223 Benedum
	25757	Linear Circuits and Systems 1	4	TuTh	6:30-7:45pm	G29 Benedum
	25760	<i>recitation</i>		F	3:00-3:50pm	
	27175	<i>lab</i>		F	3:00-4:15pm	1223 Benedum
ECE 0257	13375	Analysis & Design of Electronic Circuits	3	MW	1:00-2:15pm	G29 Benedum
ECE 1201	13373	Electronic Measurements & Circuits Lab	3	M	9:00-10:50am	1223 Benedum
	13374	<i>lab</i>		W	9:00-11:50am	1223 Benedum
ECE 1247	13389	Semiconductor Device Theory	3	MW	3:00-4:15pm	G30 Benedum
ECE 1266	13407	Applications of Fields & Waves	3	TuTh	9:30-10:45am	G37 Benedum
ECE 1552	13377	Signals & Systems Analysis	3	TuTh	1:00-2:15pm	G31 Benedum
	19697	<i>recitation</i>	3	F	12:00-12:50pm	G31 Benedum
MEMS 1053	19174	Structure of Crystals & Diffraction	3	MWF	1:00-1:50pm	G28 Benedum
MEMS 1058	15307	Electromagnetic Properties of Materials	3	MWF	12:00-12:50pm	G37 Benedum
MEMS 1059	19175	Phase Equilibria in Multi-Comp. Mat'ls	3	MWF	9:00-9:50am	G37 Benedum
	19176	<i>recitation</i>	0	W	8:00-8:50am	G37 Benedum
MEMS 1085	19871	Departmental Seminar	0	Th	11:00-11:50am	121 Lawrence
ENGSCI 1801	19951	Engineering Design 1	3	TBA	TBA	
ENGSCI 1802	19952	Engineering Design 2	3	TBA	TBA	
Electives						
ENGR 0240	19603	Nanotechnology and Nano-Engineering	3	TuTh	2:30-3:45pm	226 Benedum
ENGR 1050 [†]	<i>IE dept</i>	Product Realization	3	Tu	6:00-8:30pm	
ENGR 1090 [†]	27663	Engr. Cooperative Program	1			
ECE 1238	22688	Digital Electronics	3	MW	8:00-9:15am	G36 Benedum
PHYS 1321	22651	Computational Methods in Physics	3	MWF	10:00-10:50am	210 Thaw
PHYS 1351	10518	Intermediate Electricity and Magnetism	3	TuTh	9:30-10:45am	105 Allen
PHYS 1361	10316	Wave Motion & Optics	3	WF	1:00-1:50pm	106 Allen
	10317	<i>lab</i>		W	2:00-5:20pm	306 OEH
PHYS 1370	10320	Intro to Quantum Mechanics 1	3	MWF	11:00-11:50am	103 Allen
PHYS 1373	15864	Mathematical Methods in Physics	3	TuTh	9:30-10:45am	106 Allen

Electives (cont.)

PHYS 1376	29504	Introduction to Biological Physics	3	TuTh	11:00-12:15pm	103 Allen
PHYS 1415	28264	Quantum Physics at the Nanoscale	2	F	12:00-12:50pm	127 CL
	28265	<i>lab</i>		M	1:00-3:50pm	
PHYS 1661	23278	Wave Motion & Optics Writing Practicum	1	W	9:00-9:50am	106 Allen

† Department Consent Required

Engineering Science- Mechanics Undergraduate Course Schedule Fall Term (2191)

Required Courses						
Subj./Catlg#	Class #	Course	Units	Days	Time	Room
PHYS 0477	22654	Intro to Thermal Physics, Rel., & QM	4	MW	11:00-12:15pm	11 Thaw
				F	11:00-11:50am	11 Thaw
STAT 1000		Applied Statistical Methods	4	<i>see course catalog for options</i>		
MATH 1550	10032	Vector Analysis and Applications	3	MWF	12:00-12:50pm	G28 Benedum
ENGR 0022	13075	Materials Structure & Properties	3	MWF	10:00-10:50am	11 Thaw
	13316	<i>recitation</i>	0	M	4:00-4:50pm	11 Thaw
	13537	Materials Structure & Properties	3	MWF	9:00-9:50am	157 Benedum
	13538	<i>recitation</i>	0	M	4:00-4:50pm	A115 PH-Crabtree
ENGR 0135	13367	Statics & Mechanics of Materials 1	3	MWF	12:00-12:50pm	G8 CL
	30426	Statics & Mechanics of Materials 1	3	MWF	12:00-12:50pm	205 Lawrence
	13368	Statics & Mechanics of Materials 1	3	MWF	2:00-2:50pm	324 CL
	13370	Statics & Mechanics of Materials 1	3	M	6:00-8:30pm	129 Victoria
ENGR 0145	13277	Statics & Mechanics of Materials 2	3	MWF	2:00-2:50pm	318 Benedum
MEMS 0024	15301	Intro to Mechanical Engineering Design	3	Tu	4:00-5:50pm	120 Lawrence
	18013	<i>lab</i>	0	Tu	12:00-1:50pm	318 Benedum
	18014	<i>lab</i>	0	F	3:00-4:50pm	318 Benedum
	28174	<i>lab</i>	0	Tu	6:00-7:50pm	318 Benedum
	25788	<i>lab</i>	0	Th	5:30-7:30pm	318 Benedum
MEMS 0071	22753	Introduction to Fluid Mechanics	3	MWF	1:00-1:50pm	154 Chevron
	26885	Introduction to Fluid Mechanics	3	MWF	1:00-1:50pm	144 CL
MEMS 1010	15523	Exp Methods in Materials Science & Eng	3	TuTh	1:00-3:50pm	G27 Benedum
MEMS 1014	15303	Dynamic Systems	3	MWF	11:00-11:50am	157 Benedum
MEMS 1028	15304	Mechanical Design 1	3	MWF	2:00-2:50pm	232 CL
MEMS 1041	17264	Mechanical Measurements 1	3	MW	3:00-3:50pm	1500 Posvar
	17265	<i>lab</i>	0	Tu	8:00-10:50am	SB23 Benedum
	17266	<i>lab</i>	0	Tu	12:00-2:50pm	SB23 Benedum
	17267	<i>lab</i>	0	Tu	3:00-5:50pm	SB23 Benedum
	17268	<i>lab</i>	0	Th	8:00-10:50am	SB23 Benedum
	17269	<i>lab</i>	0	Th	12:00-2:50pm	SB23 Benedum
	24469	<i>lab</i>	0	Th	3:00-5:50pm	SB23 Benedum
MEMS 1047	17270	Finite Element Analysis	3	M	4:30-7:00pm	318 Benedum
MEMS 1053	19174	Structure of Crystals & Diffraction	3	MWF	1:00-1:50pm	G28 Benedum
MEMS 1057	17258	Micro/Nano Manufacturing	3	MWF	2:00-2:50pm	209 Lawrence
MEMS 1085	19871	Departmental Seminar	0	Th	11:00-11:50am	121 Lawrence
Electives						
ENGR 1050†	<i>IE dept</i>	Product Realization	3	Tu	6:00-8:30pm	
ENGR 1090†	27663	Engr. Cooperative Program	1			
PHYS 1321	22651	Computational Methods in Physics	3	MWF	10:00-10:50am	210 Thaw
PHYS 1351	10518	Intermediate Electricity and Magnetism	3	TuTh	9:30-10:45am	105 Allen
PHYS 1361	10316	Wave Motion & Optics	3	WF	1:00-1:50pm	106 Allen
	10317	<i>lab</i>		W	2:00-5:20pm	306 OEH
PHYS 1370	10320	Intro to Quantum Mechanics 1	3	MWF	11:00-11:50am	103 Allen
PHYS 1373	15864	Mathematical Methods in Physics	3	TuTh	9:30-10:45am	106 Allen

† Department Consent Required

Electives (cont.)

PHYS 1376	29504	Introduction to Biological Physics	3	TuTh	11:00-12:15pm	103 Allen
PHYS 1415	28264	Quantum Physics at the Nanoscale	2	F	12:00-12:50pm	127 CL
	28265	<i>lab</i>		M	1:00-3:50pm	
PHYS 1661	23278	Wave Motion & Optics Writing Practicum	1	W	9:00-9:50am	106 Allen
MEMS 1045	17257	Automatic Controls	3	TuTh	10:00-11:15am	318 Benedum
MEMS 1051	15305	Applied Thermodynamics	3	MWF	10:00-10:50am	123 Victoria
MEMS 1052	15306	Heat and Mass Transfer	3	TuTh	4:00-5:15pm	232 CL
MEMS 1053	19174	Structure of Crystals & Diffraction	3	MWF	1:00-1:50pm	G28 Benedum
MEMS 1057	17258	Micro/Nano Manufacturing	3	MWF	2:00-2:50pm	209 Lawrence
MEMS 1058	15307	Electromagnetic Properties of Materials	3	MWF	12:00-12:50pm	G37 Benedum
MEMS 1059	19175	Phase Equilibria in Multi-Comp. Mat'ls	3	MWF	9:00-9:50am	G37 Benedum
	19176	recitation	0	W	8:00-8:50am	G37 Benedum
MEMS 1082	27040	Electromechanical Sensors & Actuators	3	TuTh	2:30-3:45 pm	202 Frick Fine Arts
CEE 1330	13109	Introduction to Structural Analysis	3	TuTh	9:30-10:45am	G30 Benedum
CEE 1412	26578	Introduction to Hydrology	3	MW	2:30-3:45pm	227 Benedum
BIOENG 1631	13398	Biomechanics 2	3	TuTh	1:00-2:15pm	320 Benedum
BIOENG 1633	15289	Biomechanics 4	3	TuTh	9:30-10:45am	

Engineering Science Nanotechnology (Physics/Materials)

Undergraduate Course Schedule Fall Term (2191)

Required Courses						
Subj./Catlg#	Class #	Course	Units	Days	Time	Room
MATH		<i>For Mathematics 0280 and 0290 go to Class Search/Browse Catalog on my.pitt.edu</i>				
PHYS 0477	22654	Intro to Thermal Physics, Rel., & QM	4	MW F	11:00-12:15pm 11:00-11:50am	11 Thaw 11 Thaw
ENGR 0020		Probability & Statistics for Engineers 1	4		<i>see course catalog for options</i>	
ENGR 0022	13075	Materials Structure & Properties	3	MWF	10:00-10:50am	11 Thaw
	13316	<i>recitation</i>	0	M	4:00-4:50pm	11 Thaw
	13537	Materials Structure & Properties	3	MWF	9:00-9:50am	157 Benedum
	13538	<i>recitation</i>	0	M	4:00-4:50pm	A115 PH-Crabtree
ENGR 0135	13367	Statics & Mechanics of Materials 1	3	MWF	12:00-12:50pm	G8 CL
	30426	Statics & Mechanics of Materials 1	3	MWF	12:00-12:50pm	205 Lawrence
	13368	Statics & Mechanics of Materials 1	3	MWF	2:00-2:50pm	324 CL
	13370	Statics & Mechanics of Materials 1	3	M	6:00-8:30pm	129 Victoria
ENGR 0240	19603	Nanotechnology and Nano-Engineering	3	TuTh	2:30-3:45pm	226 Benedum
ECE 0031	13348	Linear Circuits and Systems 1	4	MW	9:00-10:15am	1211 Benedum
	13349	<i>recitation</i>				
	27173	<i>lab</i>		F	9:00-10:15am	1223 Benedum
	13350	Linear Circuits and Systems 1	4	TuTh	9:30-10:45am	150 Chevron
	13351	<i>recitation</i>				
	127174	<i>lab</i>		F	1:00-2:15pm	1223 Benedum
	25757	Linear Circuits and Systems 1	4	TuTh	6:30-7:45pm	G29 Benedum
	25760	<i>recitation</i>		F	3:00-3:50pm	
	27175	<i>lab</i>		F	3:00-4:15pm	1223 Benedum
ECE 0257	13375	Analysis & Design of Electronic Circuits	3	MW	1:00-2:15pm	G29 Benedum
ECE 1201	13373	Electronic Measurements & Circuits Lab	3	M	9:00-10:50am	1223 Benedum
	13374	<i>lab</i>		W	9:00-11:50am	1223 Benedum
MEMS 1010	15302	Exp Methods in Materials Science & Eng	3	TuTh	1:00-3:50pm	G27 Benedum
MEMS 1053	19174	Structure of Crystals & Diffraction	3	MWF	1:00-1:50pm	G28 Benedum
MEMS 1057	17258	Micro/Nano Manufacturing	3	MWF	2:00-2:50pm	209 Lawrence
MEMS 1059	19175	Phase Equilibria in Multi-Comp. Mat'ls	3	MWF	9:00-9:50am	G37 Benedum
	19176	<i>recitation</i>	0	W	8:00-8:50am	G37 Benedum
MEMS 1085	19871	Departmental Seminar	0	Th	11:00-11:50am	121 Lawrence
ENGSCI 1801	19951	Engineering Design 1	3	TBA	TBA	
ENGSCI 1802	19952	Engineering Design 2	3	TBA	TBA	
Electives						
CHEM 1130	10242	Inorganic Chemistry	3	MWF	2:00-2:50pm	154 Chevron
CHEM 1410	10245	Physical Chemistry 1	3	MW	6:00-7:10pm	150 Chevron
	10724	<i>recitation</i>		W	7:20-8:10pm	150 Chevron
	10244	Physical Chemistry 1	3	TuTh	1:00-2:15pm	150 Chevron
	10723	<i>recitation</i>		W	2:00-2:50pm	150 Chevron
CHEM 1420	12046	Physical Chemistry 2	3	MWF	10:00-10:50am	150 Chevron
	10725	<i>recitation</i>		Tu	11:00-11:50am	150 Chevron
CHEM 1480	22887	Intermediate Physical Chemistry	3	MW	4:00-5:15pm	154 Chevron
CHEM 1620	11737	Atoms, Molecules and Materials	3	MWF	1:00-1:50pm	132 Chevron

Electives (continued)

ECE 1247	13389	Semiconductor Device Theory	3	MW	3:00-4:15pm	G30 Benedum
BIOENG 1810	13344	Biomaterials and Biocompatibility	3	TuTh	9:30-10:45am	G27/G28 Benedum
PHYS 1370	10320	Intro to Quantum Mechanics 1	3	MWF	11:00-11:50am	103 Allen
ENGR 1050†	<i>IE dept</i>	Product Realization	3	Tu	6:00-8:30pm	
ENGR 1090†	27663	Engr. Cooperative Program	1			

† Department Consent Required

Engineering Science Nanotechnology (Chemistry/Bioengineering)

Undergraduate Course Schedule Fall Term (219I)

Required Courses						
Subj./Catlg#	Class #	Course	Units	Days	Time	Room
MATH	<i>For Mathematics 0280 and 0290 go to Class Search/Browse Catalog on my.pitt.edu</i>					
ENGR 0020		Probability & Statistics for Engineers 1	4		<i>see course catalog for options</i>	
ENGR 0022	13075	Materials Structure & Properties	3	MWF	10:00-10:50am	11 Thaw
	13316	<i>recitation</i>	0	M	4:00-4:50pm	11 Thaw
	13537	Materials Structure & Properties	3	MWF	9:00-9:50am	157 Benedum
	13538	<i>recitation</i>	0	M	4:00-4:50pm	A115 PH-Crabtree
ENGR 0135	13367	Statics & Mechanics of Materials 1	3	MWF	12:00-12:50pm	G8 CL
	30426	Statics & Mechanics of Materials 1	3	MWF	12:00-12:50pm	205 Lawrence
	13368	Statics & Mechanics of Materials 1	3	MWF	2:00-2:50pm	324 CL
	13370	Statics & Mechanics of Materials 1	3	M	6:00-8:30pm	129 Victoria
ECE 0031	13348	Linear Circuits and Systems 1	4	MW	9:00-10:15am	1211 Benedum
	13349	<i>recitation</i>				TBA
	27173	<i>lab</i>		F	9:00-10:15am	1223 Benedum
	13350	Linear Circuits and Systems 1	4	TuTh	9:30-10:45am	150 Chevron
	13351	<i>recitation</i>				TBA
	127174	<i>lab</i>		F	1:00-2:15pm	1223 Benedum
	25757	Linear Circuits and Systems 1	4	TuTh	6:30-7:45pm	G29 Benedum
	25760	<i>recitation</i>		F	3:00-3:50pm	TBA
	27175	<i>lab</i>		F	3:00-4:15pm	1223 Benedum
ECE 0257	13375	Analysis & Design of Electronic Circuits	3	MW	1:00-2:15pm	G29 Benedum
ECE 1201	13373	Electron Measurements & Circuits Lab	3	M	9:00-10:50am	1223 Benedum
	13374	<i>lab</i>		W	9:00-11:50am	1223 Benedum
MEMS 1010	15523	Exp Methods in Materials Science & Eng	3	TuTh	1:00-3:50pm	G27 Benedum
MEMS 1053	19174	Structure of Crystals & Diffraction	3	MWF	1:00-1:50pm	G28 Benedum
MEMS 1057	17258	Micro/Nano Manufacturing	3	MWF	2:00-2:50pm	209 Lawrence
MEMS 1059	19175	Phase Equilibria in Multi-Comp. Mat'ls	3	MWF	9:00-9:50am	G37 Benedum
	19176	<i>recitation</i>	0	W	8:00-8:50am	G37 Benedum
MEMS 1085	19871	Departmental Seminar	0	Th	11:00-11:50am	121 Lawrence
ENGSCI 1801	19951	Engineering Design 1	3	TBA		
ENGSCI 1802	19952	Engineering Design 2	3	TBA	TBA	
Electives						
CHEM 0310❖		Organic Chemistry 1	3		<i>see course catalog for options</i>	
CHEM 0320❖†		Organic Chemistry 2	3		<i>see course catalog for options</i>	
CHEM 1130❖	10242	Inorganic Chemistry	3	MWF	2:00-2:50pm	154 Chevron
CHEM 1410❖	10245	Physical Chemistry 1	3	MW	6:00-7:10pm	150 Chevron
	10724	<i>recitation</i>		W	7:20-8:10pm	150 Chevron
	10244	Physical Chemistry 1	3	TuTh	1:00-2:15pm	150 Chevron
	10723	<i>recitation</i>		W	2:00-2:50pm	150 Chevron
CHEM 1420❖	12046	Physical Chemistry 2	3	MWF	10:00-10:50am	150 Chevron
	10725	<i>recitation</i>		Tu	11:00-11:50am	150 Chevron
CHEM 1480	22887	Intermediate Physical Chemistry	3	MW	4:00-5:15pm	154 Chevron
CHEM 1620	11737	Atoms, Molecules and Materials	3	MWF	1:00-1:50pm	132 Chevron
PHYS 1370	10320	Intro to Quantum Mechanics 1	3	MWF	11:00-11:50am	103 Allen
BIOENG 1005	18625	Radiofrequency Medical Devices	3	MW	12:30-1:45pm	404 IS
BIOENG 1810	13344	Biomaterials and Biocompatibility	3	TuTh	9:30-10:45am	G27/G28 Benedum

Electives (cont.)						
ECE 1247	13389	Semiconductor Device Theory	3	MW	3:00-4:15pm	G30 Benedum
MEMS 1059	19175	Phase Equilibria in Multi-Comp. Mat'ls	3	MWF	9:00-9:50am	G37 Benedum
	19176	recitation	0	W	8:00-8:50am	G37 Benedum
ENGR 1050†	IE dept	Product Realization	3	Tu	6:00-8:30pm	
ENGR 1090†	27663	Engr. Cooperative Program	1			
Basic Lifescience Courses						
BIOENG 1070	13403	Introductory Cell Biology 1	3	TuTh	11:00-12:15pm	157 Benedum
	13404	recitation		M	8:00-8:50am	G27 Benedum
	19793	recitation		M	9:00-9:50am	G27 Benedum
	17669	recitation		M	10:00-10:50am	G27 Benedum
	19792	recitation		M	4:00-4:50pm	G27 Benedum
	18016	recitation		M	5:00-5:50pm	G30 Benedum
BIOSC 0150/160		Foundations of Biology 1 & 2	3		<i>see course catalog for options</i>	
BIOSC 1070	11103	Human Physiology - UHC	4	F	3:00-5:00pm	324 CL
				MW	5:30-6:45pm	169 Crawford
BIOSC 1250	10601	Human Physiology	3	TuTh	9:30-10:45	L9 Clapp
HRS 1020	14260	Anatomy & Physiology	4	TuTh	10:00-11:50am	TBA
HRS 1023	14254	Human Physiology	4	Th	5:30-9:20pm	TBA
NROSCI 1000	10173	Introduction to Neuroscience	3	TuTh	4:00-5:15pm	L9 Clapp
	25350	Introduction to Neuroscience	3	TuTh	11:00-12:15pm	169 Crawford
Core Chemistry Options						
CHEM 0250	11404	Intro to Analytical Chemistry	3	MWF	6:00-7:15pm	154 Chevron
	11405	recitation		W	7:20-8:10pm	154 Chevron
	10238	Intro to Analytical Chemistry	3	MWF	9:00-9:50am	154 Chevron
	10726	recitation		Th	5:00-5:50pm	154 Chevron
CHEM 1250	10243	Instrumental Analysis	3	TuTh	6:00-7:15pm	TBA
	10875	recitation		Th	7:20-8:10pm	150 Chevron
Core Bioscience Options						
BIOSC 1000		Biochemistry	3		<i>see course catalog for options</i>	
BIOSC 1810	10605	Macromolecular Structure & Function	3	MWF	1:00-1:50pm	A224 Langley
	10602	recitation		Th	12:00-12:50pm	241 Crawford
	10603	recitation		Th	1:00-1:50pm	241 Crawford
	29665	recitation		Th	4:00-4:50pm	241 Crawford
Core Bioengineering Options						
BIOENG 1075	28992	Intro to Cell & Molecular Bio Lab Techniques	3	Th	1:00-2:55pm	TBA
	28993	recitation		F	9:00-12:00pm	TBA
BIOENG 1095†	13239	Special Projects	1-6	TBA	TBA	TBA
BIOENG 1210	29943	Bioengineering Thermodynamics	3	MW	11:00-12:15pm	320 Benedum
	29944	recitation		Tu	9:00-9:50am	320 Benedum
BIOENG 1220	13198	Biotransport Phenomena	3	MW	4:30-5:45pm	320 Benedum
	19712	recitation		Tu	5:00-5:50pm	320 Benedum
	22572	Biotransport Phenomena	3	MW	9:30-10:45am	320 Benedum
	22573	recitation		Tu	10:00-10:50am	320 Benedum
BIOENG 1241	19724	Societal, Political and Ethical Issues in BioE	3	MW	11:00-12:15pm	G31 Benedum
BIOENG 1320	13405	Biological Signals & Systems	3	TuTh	2:30-3:45pm	TBA
	13406	recitation		W	1:00-1:50pm	320 Benedum
BIOENG 1330	22574	Biomedical Imaging	3	TuTh	2:30-3:45pm	320 Benedum

† Department Consent Required

❖ Core Chemistry Course

Engineering Science Nuclear Energy Concentration

Undergraduate Course Schedule -- Fall Term (2191)

Required Courses						
Subj./Catlg#	Class #	Course	Units	Days	Time	Room
MATH		<i>For Mathematics 0280 and 0290 go to Class Search/Browse Catalog on my.pitt.edu</i>				
MATH 1470		Partial Differential Equations 1	3	MWF	2:00-2:50pm	
ENGR 0022	13075	Materials Structure & Properties	3	MWF	10:00-10:50am	11 Thaw
	13316	<i>recitation</i>	0	M	4:00-4:50pm	11 Thaw
	13537	Materials Structure & Properties	3	MWF	9:00-9:50am	157 Benedum
	13538	<i>recitation</i>	0	M	4:00-4:50pm	A115 PH-Crabtree
ENGR 0135	13260	Statics & Mechanics of Materials 1	3	MWF	12:00-12:50pm	154 Chevron
	28456	Statics & Mechanics of Materials 1	3	MWF	12:00-12:50pm	205 Lawrence
	13261	Statics & Mechanics of Materials 1	3	MWF	2:00-2:50pm	G23 PH - Parran
	13263	Statics & Mechanics of Materials 1	3	M	6:00-8:30pm	107 Lawrence
ENGR 0145	13277	Statics & Mechanics of Materials 2	3	MWF	2:00-2:50pm	318 Benedum
ENGR 1700	25186	Introduction to Nuclear Engineering	3	MW	4:30-5:45pm	125 Frick Fine Arts
ENGR 1702	13435	Nuclear Plant Technology	3	Th	6:00-8:30pm	G34 Benedum
MEMS 0071	22753	Introduction to Fluid Mechanics	3	MWF	1:00-1:50pm	154 Chevron
	26885	Introduction to Fluid Mechanics	3	MWF	1:00-1:50pm	144 CL
MEMS 1085	19871	Departmental Seminar	0	Th	11:00-11:50am	121 Lawrence
MEMS 1014	15303	Dynamic Systems	3	MWF	11:00-11:50am	157 Benedum
MEMS 1041	17264	Mechanical Measurements 1	3	MW	3:00-3:50pm	1500 Posvar
	17265	<i>lab</i>	0	Tu	8:00-10:50am	SB23 Benedum
	17266	<i>lab</i>	0	Tu	12:00-2:50pm	SB23 Benedum
	17267	<i>lab</i>	0	Tu	3:00-5:50pm	SB23 Benedum
	17268	<i>lab</i>	0	Th	8:00-10:50am	SB23 Benedum
	17269	<i>lab</i>	0	Th	12:00-2:50pm	SB23 Benedum
	24469	<i>lab</i>	0	Th	3:00-5:50pm	SB23 Benedum
MEMS 1042	17261	Mechanical Measurements 2	3	TuTh	9:00-9:50am	318 Benedum
	17262	<i>lab</i>	0	Th	10:00-11:50am	SB27 Benedum
	17263	<i>lab</i>	0	Th	1:00-2:50pm	SB27 Benedum
	18607	<i>lab</i>	0	Tu	2:00-3:50pm	SB27 Benedum
	18657	<i>lab</i>	0	Tu	12:00-1:50pm	SB27 Benedum
MEMS 1051	15305	Applied Thermodynamics	3	MWF	10:00-10:50am	123 Victoria
MEMS 1052	15306	Heat and Mass Transfer	3	TuTh	4:00-5:15pm	232 CL
MATH 1020	11590	Applied Elementary Number Theory	3	MW	4:00-5:15pm	103 Allen
MATH 1050	25077	Combinatorial Mathematics	3	MWF	11:00-11:50am	316 OEH
MATH 1070	10030	Numerical Mathematical Analysis	3	MWF	12:00-12:50pm	A522 PH-Crabtree
	22952	Numerical Mathematical Analysis	3	MWF	10:00-10:50am	316 OEH
MATH 1101	25078	An Introduction to Optimization	3	MWF	9:00-9:50am	704 Thackeray
MATH 1180	10931	Linear Algebra 1	3	MWF	9:00-9:50am	524 Thackeray
	11460	Linear Algebra 1	3	MWF	12:00-12:50pm	316 OEH
MATH 1230	11491	The Big Ideas of Mathematics	3	TuTh	4:00-5:15pm	627 Thackeray
MATH 1270	25080	Ordinary Differential Equations 1	3	MWF	11:00-11:50am	627 Thackeray
	10031	Ordinary Differential Equations 1	3	MWF	1:00-1:50pm	236 CL
	18589	Ordinary Differential Equations 1	3	MWF	2:00-2:50pm	G28 Benedum
MATH 1350	26568	Introduction to Differential Geometry	3	MWF	1:00-1:50pm	218 CL
MATH 1360	11302	Modeling in Applied Math 1	3	MWF	10:00-10:50am	103 Allen

Required Courses (cont.)

MATH 1470	11636	Partial Differential Equations 1	3	MWF	2:00-2:50pm	G24 Benedum
MATH 1530	18614	Advanced Calculus 1	3	MWF	12:00-12:50pm	G27 Benedum
	18615	Advanced Calculus 1	3	MWF	10:00-10:50am	G24 Benedum
MATH 1550	10032	Vector Analysis and Applications	3	MWF	12:00-12:50pm	G28 Benedum
PHYS 0477	22654	Intro to Thermal Physics, Rel., & QM	4	MW	11:00-12:15pm	11 Thaw
				F	11:00-11:50am	11 Thaw
PHYS 1351	10518	Intermediate Electricity and Magnetism	3	TuTh	9:30-10:45am	105 Allen
ENGSCI 1801	19951	Engineering Design 1	3	TBA	TBA	
ENGSCI 1802	19952	Engineering Design 2	3	TBA	TBA	

Electives

ENGR 1050 [†]	<i>IE dept</i>	Engr. Cooperative Program	3			
ENGR 1090 [†]	27663	Engr. Cooperative Program	1			

[†] Department Consent Required

More information on electives and program requirements can be found on the reverse of this sheet.

To earn a BS in Engineering Science with a concentration in Nuclear Energy the student takes an additional 15 credits of Program Electives in addition to the required courses. The 15 credits must include an area of emphasis consisting of at least 9 credits of interrelated courses demonstrating depth of knowledge. Note that at least 6 of the 15 program elective credits must be in Engineering, Science or Math. Potential 3-course areas of emphasis are listed below but sequences in foreign languages and culture, economics, business, and other areas can be approved by the ECSI program director.

Potential 3-course areas of emphasis:

- Nuclear Engineering - graduate nuclear engineering courses
- Civil & Environmental Engineering - Structural, Water Resources, Construction Management & Sustainability, Environmental Engineering
- Bioengineering - Biosignals and Imaging
- Electrical Engineering - Power
- Industrial Engineering - Engineering Management
- Mechanical Engineering - Dynamic Systems, Solid Mechanics
- Materials Science & Engineering
- Physics
- Mathematics - Numerical methods and Analysis

Alternatively the student may fulfill the elective requirement by earning a certificate (besides the Nuclear Engineering Certificate) offered by the SSOE:

- Energy Resource Utilization
- Fessenden Honors Engineering
- International Engineering Studies
- Product Realization
- Sustainable Engineering